Mr. Hugh Mattingly, General Manager
Kimball Electronics Group
1038 East 15th Street
P.O. Box 587
Jasper, Indiana 47549-1003

Dear Mr. Mattingly:

Re: Exempt Construction and Operation Status,
037-11455-00100

The application from Kimball Electronics Group, received on October 4, 1999, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following PVA potting system, and humiseal coating change to the existing Conformal Coating Process, to be located at 1038 East 15th Street, Jasper, Indiana, is classified as exempt from air pollution permit requirements:

(a) One (1) PVA potting system with two (2) feed lines using 340 Epoxy resin or heat cure silicone with a maximum capacity of 10 milliliters per minute, and each line identified as PVA1 and PVA2, in which only one feed line can dispense at a time, one (1) conveyorized IR electric oven for curing, identified as CO131, with exhausts at stack 131 for the dispense station and cure oven.

(b) One (1) portable reflow electric oven, identified as RO133, to be used at any chosen production line, venting to heat exhaust stack 133.

(c) One (1) closed loop in-line hot deionized water cleaning system, identified as IWC132, venting to heat exhaust stack 132.

(d) One (1) batch water washer using hot filtered deionized water for cleaning circuit boards, identified as BWW143, venting to heat exhaust stack 134.

(e) The Conformal Coating Process, identified as CC3 and constructed in 1997, with a maximum flow rate of 5 milliliters per minute of coating, will have an addition of one (1) laboratory electric curing oven, identified as LO130, venting to heat exhaust stack 130.

The following conditions shall be applicable:

(1) There are no VOCs or HAPs associated with the 340 Epoxy resin used in the PVA potting system, the in-line water cleaner, or the batch water washer.

(2) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternate Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (sixty (60) readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen

(15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(3) Pursuant to 326 IAC 6-3-2(c) (Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(4) The VOC emissions from the Conformal Coating Process, CC3, shall be less than fifteen (15) pounds of VOC per day before add-on controls in order for this process to not be subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations).

This existing source has submitted their Part 70 application T 037-11455-00100 on December 4, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

MMG

cc: File -Dubois County
Dubois County Health Department
Air Compliance - Ray Schick
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak
Part 70 Application File - T-037-7356-00100

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	**Kimball Industrial Complex- Kimball Electronics Group**
Source Location:	**1038 East 15th Street, Jasper, Indiana 47549-1003**
County:	**Dubois**
SIC Code:	**3714, 3577, 3679**
Permit No.:	**T037-11455-00100**
Permit Reviewer:	**Melissa Groch**

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Kimball Industrial Complex, Kimball Electronics Group relating to the operation and construction of one PVA potting system, a reflow oven, an inline water cleaner, a batch water washer, and a laboratory oven. Also, the existing Conformal Coating Line #3 process will be replacing a coating.

This new equipment will be incorporated into the pending Title V operating permit for this source.

New Emission Units and Pollution Control Equipment

(a) One (1) PVA potting system with two (2) feed lines using 340 Epoxy resin or heat cure silicone with a maximum capacity of 10 milliliters per minute, and each line identified as PVA1 and PVA2, in which only one feed line can dispense at a time, one (1) conveyorized IR electric oven for curing, identified as CO131, with exhausts at stack 131 for the dispense station and cure oven.

(b) One (1) portable reflow electric oven, identified as RO133, to be used at any chosen production line, venting to heat exhaust stack 133.

(c) One (1) closed loop in-line hot deionized water cleaning system, identified as IWC132, venting to heat exhaust stack 132.

(d) One (1) batch water washer using hot filtered deionized water for cleaning circuit boards, identified as BWW143, venting to heat exhaust stack 134.

(e) The Conformal Coating Process, identified as CC3 and constructed in 1997, with a maximum flow rate of 5 milliliters per minute of coating, will have an addition of one (1) laboratory electric curing oven, identified as LO130, venting to heat exhaust stack 130.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process. The Conformal Coating Process CC3, constructed in 1997, did not receive an exemption approval at the time it was constructed because the source did not request one.

Existing Approvals

Prior to this exemption approval, Kimball Electronics Group has been operating under previous approvals including, but not limited to, the following:

(1) Exemption issued May 3, 1982;
(2) Registration issued January 18, 1988;

(3) Registration issued April 18, 1989;

(4) Registration issued May 2, 1989;

(5) Registration 037-1800-00039, issued February 21, 1992; and

(6) Registration 037-4061-00039, issued November 1, 1994.

Source Definition

Kimball Electronics Group is one of the companies included in the Kimball Industrial Complex. Prior to the Part 70 Operating Permit Program, Kimball Electronics operated as an individual source. The complex consists of six (6) plants:

(1) Artec Manufacturing located at 1037 East 15th Street and 1450 Cherry Street, Jasper, Indiana 47549-1007;

(2) Jasper Furniture Company located at 1180 East 16th Street, Jasper, Indiana 47549;

(3) Kimball Electronics located at 1038 East 15th Street, Jasper, Indiana 47549-1003;

(4) Jasper Laminates (consisting of two buildings) located at 1620 Cherry Street, Jasper, Indiana, 47549;

(5) Jasper Furniture Company located at 245 East 30th Street, Jasper, Indiana 47549; and

(6) Jasper Furniture Warehouse at 251 East 30th Street, Jasper, Indiana 47549.

Since the six (6) plants are located on contiguous properties, or within the same locality, and since all are owned by one (1) company, they are being considered one (1) source for purposes of Title V.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
130	Laboratory electric curing oven	not available	not available	not available	not available
131	PVA potting system, and IR electric oven	not available	not available	not available	not available
133	Portable reflow electric oven	not available	not available	not available	not available
132	In-line water cleaner	not available	not available	not available	not available
134	Batch water washer	not available	not available	not available	not available

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 18, 1999, with additional information received on December 13, 1999, and February 2, 2000.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These

calculations are provided in Appendix A of this document, page 1 of 1.

Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the new exempt emission units at Kimball Electronics Group.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
340 Epoxy Resin	0	0	0	0	0	0	0
Thermoset SC-254 Heat Cure Silicone	0	0	0	0.01	0	0	0
Reflow Oven	0	0	0	0	0	0	0
Inline Water Cleaner	0	0	0	0	0	0	0
Batch Water Washer	0	0	0	0	0	0	0
Laboratory Oven	0	0	0	0	0	0	0
Humiseal 1B73	0	0	0	1.87	0	0	0.45
Total Emissions:	0	0	0	1.88	0	0	0.45

These new units are considered exempt because the VOC emissions are less than 10 tons per year, and the HAPs emissions are less than 10 tons per year for a single HAP, and less than 25 tons per year for a combination of HAPs.

County Attainment Status

The source is located in Dubois County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2, and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	greater than 100, less than 250
PM10	greater than 100, less than 250
SO_2	less than 100
VOC	greater than 250
CO	less than 100
NO_x	less than 100

(a) This existing source is a major stationary source because VOC is emitted at a rate of 250 tons per year or greater.

(b) These emissions were based on the Part 70 applications submitted by the company.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification	0	0	0	1.88	0	0
PSD or Offset Significant Level	25	15	40	40	100	40

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 T037-7356-00100 application on December 4, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to these exempt units.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to these exempt units.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on December 4, 1996. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM and VOCs. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternate Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (sixty (60) readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6)

hour period.

State Rule Applicability - New Equipment

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2(c) (Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

The new units are not subject to 326 IAC 8-2-9, because the potential VOC calculations (Appendix A) show that the potential emissions will be less than fifteen (15) pounds of VOC per day. As a result, this projects that the actual emissions would also be less than fifteen (15) pounds of VOC per day before add-on controls.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations for detailed air toxic calculations.

Conclusion

The construction and operation of the new equipment described in this technical support document shall be subject to the conditions of the attached **Exemption 037-11455-00100**.

Appendix A: Emissions Calculations
VOC, Particulate, and HAPs
From Surface Coating Operations

Company Name: Kimball 15th Street Industrial Complex- Kimball Electronics Group
Address City IN Zip: 1038 East 15th Street, Jasper, Indiana
Permit Number: 037-11455
Plt ID: 00100
Reviewer: Melissa Groch

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
PVA Potting System Options- use worst case coating in total potential emissions below																
Thermoset SC-254	8.73	1.00%	0.0%	1.0%	0.0%	99.00%	0.01584	1.000	0.09	0.09	0.00	0.03	0.01	0.00	0.09	100%
340 Epoxy Resin	20.00	0.01%	0.0%	0.0%	0.0%	99.99%	0.01584	1.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Conformal Process #3																
Humiseal 1B73	7.67	70.30%	0.0%	70.3%	0.0%	0.00%	0.07926	1.000	5.39	5.39	0.43	10.26	1.87	0.00	ERR	100%
State Potential Emissions			**Add worst case coating to all solvents**								**0.43**	**10.29**	**1.88**	**0.00**		

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

HAPs

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	MEK Emissions (ton/yr)
Humiseal 1B31	7.67	0.079260	1.00	17.00%	0.45

Total State Potential Emissions **0.45**

METHODOLOGY
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs